

THE TECH

VOL. XIV.

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NO. 15.

THE TECH

Published every Thursday, during the college year, by students of the Massachusetts Institute of Technology.

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JOHN HOWLAND GARDINER, '95.

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H. P. CODDINGTON, '95, *Business Manager.*

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For the benefit of students THE TECH will be pleased to answer all questions and obtain all possible information pertaining to any department of the College.

Contributions are requested from all undergraduates, alumni, and officers of instruction. No anonymous manuscript can be accepted.

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enviored its predecessors. Doubtless already each Technology man has dwelt upon past experience only to draw forth a goodly stock of old and time-worn resolutions, which he has duly rejuvenated and reinstated to serve a purpose during the coming year. For all we would suggest that two determinations be made: to advance the cause of Technology to the fullest possible extent by increased interest in its purposes, its undertakings, and its social life; to aid, rather than discourage, its repre-

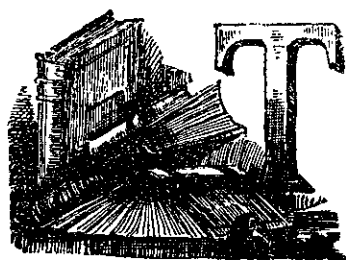
sentative, THE TECH, by subscriptions and by literary support. Little can be accomplished in the elevation of our college institutions if there be not an earnest co-operation within as well as without; absolutely nothing can be done toward publishing a worthy college representative if but few support, and the general mass scoff.

Probably no other year in the history of Technology has witnessed so many events which must be considered encouraging from the standpoint of growth, as has Ninety-four. No less gratifying than the increased spirit among its members is the renewed enthusiasm which has been awakened throughout the entire body of alumni. Technology has at last become recognized by the daily press as well in her social as in her official undertakings; almost every department has been strengthened, the enrollment of students enlarged, and the endowment fund made more substantial.

It is hardly necessary to call attention to the number of social clubs, representing cities, sections, and preparatory schools, which the year has called into being; nor is it necessary to advert to the successes of Junior week with its Assembly, French Plays, and Exhibits; to the establishment of the coach and training table in the domain of football, as possible permanent institutions; nor to the noteworthy improvement in the special work of language and professional societies.

Tempus fugit: carpe diem, the Romans have said, but they little realized how painfully the truth of their ancient maxim would be forced upon the college student of a later century in the days preceding the semies. Ninety-five is indeed bringing this testing period on apace. THE TECH can only advance its ounce of prevention by a sage

advice, born of experience,—faithful study, a cool brain, and an attempt, not at honors but at knowledge; further than this, it can but extend its best wishes for a successful voyage through the examinations, and for a “happy and helpful New Year.”



THE catalogue of the Institute for 1894-95 has made its appearance, and copies are now ready for students and outside distribution.

Three members of the Corporation have died during the past year,—A. Lawrence Rotch, Francis A. Waterhouse, and Henry Saltonstall; and one new member, Mr. George A. Gardner, has been elected; Mr. Thornton K. Lothrop has been appointed chairman of the Committee on Architecture, in place of Mr. Rotch, and Col. Thomas L. Livermore succeeds Mr. Saltonstall as member of the Executive Committee. The new lecturers for the current year are: Walter C. Fish, on Construction and Applications of Electromotors; Dr. J. Walter Fewkes, on Anthropology; Hollis French, on Electrical Engineering Practice and Specifications; Odin B. Roberts, on the Nature and Function of Patents for Inventions; Prof. Elihu Thomson, on Recent Developments in Applied Electricity. The requirements for admission have been somewhat changed, as the entrance examination in Arithmetic has been discontinued, and accuracy in the numerical work of the papers in Algebra and Geometry will be considered in its stead. The requirement of English has been considerably extended, for in addition to the usual number of books which the candidate is expected to read in preparation for the examination, a certain number must be thoroughly studied in order that an examination upon their subject-matter and structure may be passed. The catalogue shows that the number of students at present attending Technology is 1,183.



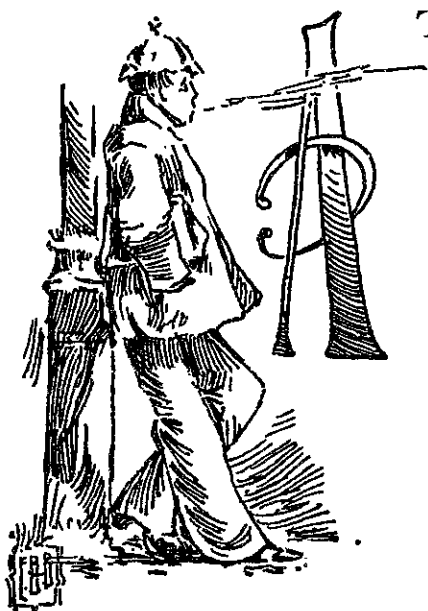
OUR attention has again been called to the gymnasium and its incapacity to accommodate those students who are in attendance there for regular exercise. Since the small addition containing the shower baths was built, there has been hardly an afternoon when an adequate supply of warm water in the tank has been provided. Upon inquiry we learn that the dwarf boiler now used is capable of heating an amount of water only sufficient to last about one hour, and when this is used up no more can be obtained until the tank can be refilled and the water heated, with consequent deprivation to late comers.

In view of the number of men who are thus compelled to suffer discomfort on this account, it would seem wise that a larger boiler be purchased and the evil remedied.



THE TECH notes with satisfaction the large increase of late in the number of lower classmen, especially in Ninety-eight, who are trying for positions on the Board. It has ever been the policy of THE TECH to elect, with little regard to the number of men already on the staff, those men who, by faithful, regular, and prompt work, and by literary qualifications, prove themselves competent. This principle will be carried out to the fullest extent in the future, and every man who hands in material will be credited with the amount of suitable copy which is advanced, and will be encouraged by impartial criticism and advice. Owing to a lack of representa-

tion from Ninety-eight, items of interest to the class, and even to Technology as a whole, have been overlooked; a state of affairs which ought no longer to exist.



Ta recent meeting the Freshmen voted that their class dinner should be entirely over at twelve, and that no wine should be served. It seems a pity that such an action should be deemed necessary in order to secure orderly conduct at a dinner. The mem-

bers of a class ought to have sufficient respect for Technology, and for their class, to behave themselves without compulsion. Such a rule savors strongly of the High School, and is unworthy of men at Technology, who are supposed to have attained years of discretion, and therefore to know how to act like gentlemen. A motion of this sort by any class shows a woful lack of confidence in its members, and it is to be hoped that such action will never again be deemed necessary by classes at the Institute.



SUGGESTION was advanced at the Senior Dinner which, in the excitement of the moment, might not perhaps have been as deeply impressed as it should, but which ought certainly to receive the serious consideration of Ninety-five. We speak of the reference made to the custom, inaugurated some years ago, but now unhappily fallen into disuse, of each Senior Class leaving some

memorial to the Institute. The speaker of that evening proposed a voting booth, with all the apparatus pertaining to the Australian ballot system. This was certainly an excellent suggestion, and succeeding classes would thus be saved many vexations which have fallen to the lot of previous years.

Other men, however, have expressed the opinion that a voting booth would not, perhaps, be as durable as the fame of Ninety-five would warrant, and that a marble drinking fountain, suitably inscribed, to replace the present rather uninviting one in Roger's corridor, might be made a beautiful and certainly useful memorial to Ninety-five. In any event, the custom of leaving Technology some useful gift is a most fitting and graceful one, and it is gratifying to notice that Ninety-five is looking toward its revival.



THE sad death of a Technology man last week brings to mind again the necessity of interesting one's self in other things than the mere grind of college life. The opportunities for social pleasures

are so few, that there is always considerable danger of becoming so closely confined to the term work as to forget the greater world outside Technology, for which we are preparing. Studies come to assume an undue importance, and become the end instead of the means to an end. In the hurried rush of work we are liable to forget the demands that coming years have upon us, the claims of our friends, and even our own right to health and happiness. The greatest good to be gotten from college life lies not so much in the subject matter and the marks obtained, as in the training for future demands upon our strength and intelligence. It is a mistake to give one's mind so completely to the work in hand as to forget other things of importance. The life of a college man should

include the pleasure of social association as well as the ceaseless toil of study. A little more interest in each other will do much to drive away the blue days which too often hang about the Institute. At such times, if students would meet to talk together, and become more friendly with one another, it would prove of reciprocal advantage, and perhaps lessen the possibilities of such depressing despondency as was exhibited so unfortunately a week since.



E take great pleasure in announcing the unanimous election of Mr. E. A. Baldwin to the position of Assistant Editor-in-Chief, at the Annual Meeting of the Tech Board, Monday, December 31st. The election of Secretary, which is ordinarily accomplished at this meeting, was deferred until the beginning of the Spring term.

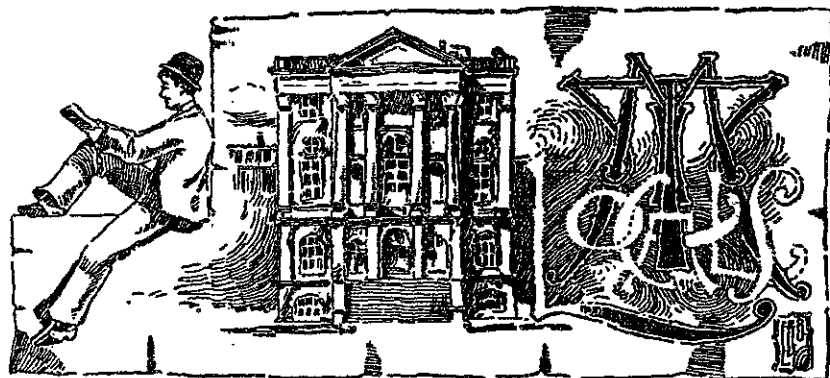
Calendar.

- January 3d.—“The Testing of Dynamo Electric Machinery,” Professor Puffer, Room 22, Walker, at 7:45 P. M.
- January 3d and 8th.—“The Metallurgy of Gold,” Professor Hofman, Room 36, Rogers, at 7:45 P. M.
- “The Testing of Engineering Materials,” Professor Sondericker, Room 22, Rogers, at 7:30 P. M.
- January 4th.—“The Rise and Development of Prose Fiction in France,” Professor van Daell, Room 22, Walker, at 8 P. M.
- January 4th and 7th.—“Resistance and Propulsion of Ships,” Professor Peabody, Room 22, Rogers, at 7:45 P. M.
- “Government of the United States,” Professor Currier, Room 26, Rogers, at 7:45 P. M.
- January 7th.—“Highways: Their Location, Construction, and Economics,” Professor Allen, Room 11, Rogers, at 7:30 P. M.
- January 8th.—“Fuels,—Solid, Liquid, and Gaseous: Their Origin, Analysis, and Applications,” Room 23, Walker, at 7:45 P. M.

Not That Time.

The only time Willie was ever polite
Was once when I called on his sister.
She chanced 'neath the mistletoe; I did my best,
But Willie, who saw, called out “Mr.”

A. W. J.



The Andover Club held a dinner on December 19th.

The French Club now numbers about fifty members.

The first '98 class dinner will take place soon after the mid-year recess.

Theodore Horton, '94, is an inspector on the Board of Health, Montclair, N. J.

Mr. Charles Royce Boss, '94, is studying elocution at the Emerson School of Oratory.

Professor Cross was unable to give his usual lectures on Wednesday, December 12th.

A. A. Clement, '94, is with the Walburn-Swanson Co., Chemical and Mining Engineers.

A meeting of the Mondamin club was held Monday, the 17th. Several new members were elected.

Mr. Bartlett will begin his lectures on sculpture and art early next term in the Architectural Building.

Only a few copies of the Christmas TECH remain. Persons desiring copies should apply for them at once.

Messrs. Fisher and Hutchinson have been appointed to act with President Hall as a dinner committee for '98.

Several instructors were so delayed by the snow last Thursday that they were unable to meet their classes.

The annual dinner and reunion of the Class of '77 was held at Young's last Friday evening, December 28th.

There will be an interesting lecture on Orders, in Room 11, Architectural Building, next week Monday.

Messrs. Hutchinson and Winslow have been appointed a committee to look after "Technique" interests in '98.

The meeting of the Walker Club which was to be held last Monday evening has been postponed until next term.

"The Tech" Board wishes to extend its thanks to the Varsity Football Team for its photograph received last week.

The first of the fourth-year boiler tests began last Tuesday. Tests of seventy-two hours were run in shifts of nine hours.

The Institute Committee meeting, called last Monday afternoon, in THE TECH office, was adjourned for want of a quorum.

THE TECH has learned that Mr. W. D. McJennett, '94, has been ill with rheumatic fever. He is now convalescent.

A number of the Freshmen wrote on the subject "College Profanity" in English Composition. Their views were more amusing than moral.

Professor Burton has been appointed a member of the Massachusetts Geological Commission, in place of Prof. N. S. Shaler, of Harvard, resigned.

There is a movement on foot among those members of Beta Theta Pi who are at Technology toward the organization of a chapter of that society here.

Copies of the half-tone of the Varsity football team, similar to those published in the last issue of THE TECH, may be procured at the office. Price ten cents.

A meeting of the Mondamin Club was held Monday, December 17th, in Room 20, R., in which it was decided to have the next dinner Saturday, January 5th, at the Parker House.

A number of students took advantage of the low rates on the Boston & Albany during the Christmas holidays. The same arrangement may be secured for the coming recess.

The Sophomore Architects have presented Mr. Shedd with a huge pencil, wound with ribbons of the class colors, which he has promised to use freely in correction of their work.

Mr. C. N. George, of the Boston Municipal Fire Department Company, lectured last Friday evening in Room 22, Walker, to Course VI. men, on the Boston Fire Alarm System.

Those who intend submitting designs for a Technology pin are reminded that the competition closes February 1st. Designs should be left for Mr. George W. Hayden, '95, at the Cage.

Professor Richards spoke Tuesday of last week in the Freshman Chemistry lecture hour on the merits of Courses V. and X., with a view toward assisting the '98 men in choice of courses.

A large number of Ninety-five men have already begun their theses, which will be published in THE TECH, next term. Members of the Senior class are requested to hand in the titles of their theses at once.

Two new clubs are among the probabilities of the near future. One is a Chicago club, which will certainly have an energetic and numerous membership, and the other a gun club, a new departure at Technology.

The Gym. is practically deserted now, except for the men in training for the team race with Brown at the B. A. A. meeting, on February 9th. Thomas, Tillinghast, Rockwell, Hall, Wise, and Sargent are some of the probable candidates.

The course of twelve lectures by Prof. John Fiske on "Old Virginia and her Neighbors," in the Lowell Institute Course, should be largely attended by Technology men. The lectures will be given on Tuesday and Friday evenings, beginning January 1st.

The Technology Mandolin Club gave a very enjoyable concert at Framingham last Friday night in connection with the exercises of the Framingham Academy Alumni Association. A. L. Kendall, '94, entertained the members of the club very pleasantly.

Professor Richards has in preparation a treatise on metallurgy of iron and steel which is very comprehensive, and will be valuable to members of Courses I., II. and III. Many orders have been received for the work from men outside the Institute.

All Chicago men are urged to hand their names to Beers, '97, with a view toward organizing a Chicago Club. There is a large contingent of Chicago men at Technology, and the World's Fair City should certainly be represented by a creditable organization.

According to the new catalogue, candidates for admission to the Institute will not be compelled to take arithmetic examinations hereafter. Students excused from military drill and tactics, must be twenty-three years of age, instead of twenty-one, as in years previous.

The Junior Architects received mentions on their first problem in design this year, as follows: Esther Stone, 1st mention; J. F. Gaylor, 1st 2d mention; R. S. Henry, H. Von Holst, and Russell Porter, 2d mention; Douglas H. Thomas, Jr., 3d mention, and M. Sax, 3d mention.

The Class of '79 held its annual reunion at the University Club last Friday evening. The following officers were elected for the ensuing year: President, Walter S. Allen; Vice President, F. R. Loring; Secretary, H. H. Campbell; Executive Committee, H. J. Howe, and F. J. Stantial.

The plays to be given by L'Avenir have practically been decided upon, and the parts will be assigned this term so that they can be learned during the holidays. A large number

of men have come forward in response to Mr. Bernard's appeal, and everything points to a repetition of last year's success.

Mr. Theodore Horton, '94, Sanitary Engineer, published in the *Medical Record* of November 24th, "An Account of an Epidemic of Typhoid Fever in Montclair, N. J." Mr. Horton is Inspector of the Board of Health of Montclair, having secured the position immediately after his graduation, last June.

President Walker has been appointed a member of a committee of fifty prominent educators throughout the United States, to investigate in a thoroughly systematic and scientific manner all phases of the liquor question. President Walker is to investigate especially the economic aspect of the liquor evil.

The annual election of the officers of L'Avenir took place Monday afternoon. R. Norris, '96, was unanimously re-elected president, Wm. Otis Sawtelle, '97, was elected vice president, R. R. Rumery, '98, secretary, S. P. Mason, '97, treasurer, and Harry G. Fiske, '96, member of the executive committee.

The work on Trinity Church is rapidly nearing completion, and every day the true architectural effect of the Romanesque style designed by the late Mr. Richardson becomes more apparent. The addition of the towers gives a finish to the whole, and the church gains in stateliness. Copley Square will have gained new beauty when the work is done.

The Glee Club meeting on Dec. 19th was opened by Mr. Wason. The Chicago trip was discussed, and it was decided to abandon the idea. A New England trip was then discussed, and a committee of three, consisting of Messrs. Schmitz, Stearns, and Thompson, was appointed to look up the matter. A motion that the Wellesley concert be given on February 2d, was carried.

Massachusetts Institute of Technology Banjo Club.



N. CHENEY.
L. S. TYLER.

F. W. SMYSER.
G. F. SHEPARD.
F. M. BLAKE.

G. S. MUNROE.
G. L. LANSING.

J. W. SHUMAN.
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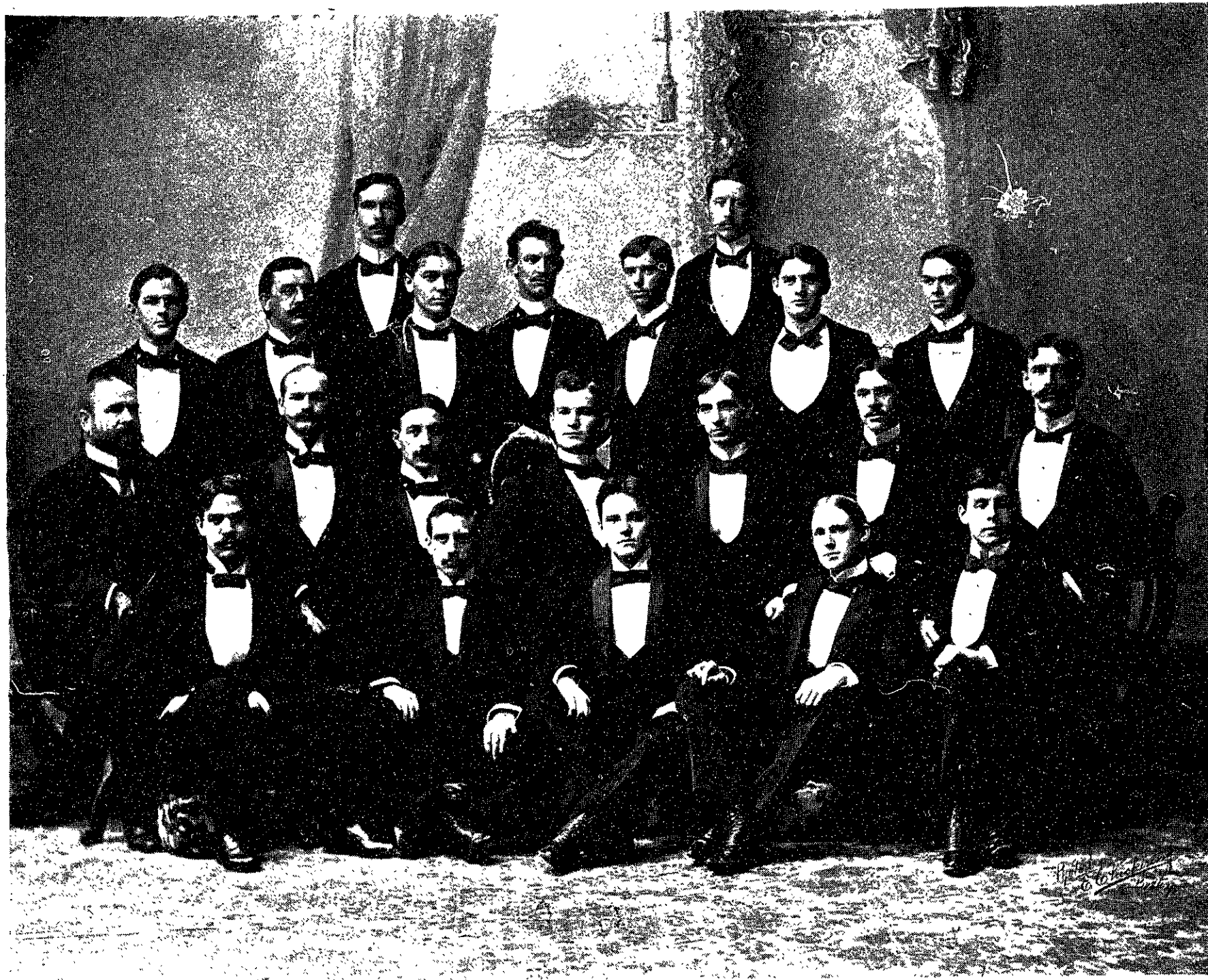
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G. L. LANSING.

J. L. PUTNAM.

J. W. SHUMAN.
J. H. SLAVENS.
A. W. THOMPSON.

Massachusetts Institute of Technology Glee Club.



STEARNS.	SMYSER.	ANTHONY.	LAMB.	HOWLAND.	TRAVIS.	HILDRETH.	BAKER.	UNDERWOOD.
OSGOOD.	WASON.	HAZELTON.	SCHMITZ.	DODGE.	DRAKE.	GARDNER.	YOUNG.	LEIGHTON.
COOMBS.		CHASE.						ROBINSON.

An important boiler test is being made this week on the boilers in the new boiler house. The construction of these boilers was done very scientifically under the direct supervision of Professor Schamb. The test will be conducted by Professor Miller. There will be four tests of twenty-four hours each beginning Tuesday. The results of the tests will be published in the *Technology Quarterly*.

The noncommissioned officers of the 1st Battalion took part in a competitive drill, Monday, December 17th, in the South Armory. December 28th the noncommissioned officers of the 2d Battalion were given a similar drill, and the regimental colors were awarded. Before the competitive drill the whole 1st battalion was inspected by Captain Bigelow, assisted by Adjutant Frye, First Infantry, M. V. M., and Lieutenant Long, Second United States Artillery.

The following men joined K₂S at the dinner held Friday, December 28th: Sears, III., '95, Allen, V., '97, Gilbert, V., '97, and Lockwood, V., '97. Dr. Noyes and Dr. W. H. Walker were present. Dr. Noyes spoke on the subject, "Why does Germany lead the world in Industrial Chemistry?" Papers were read by Hodge on "The Qualitative and Quantitative Separation of Arsenic, Antimony, and Tin," and by Sadtler on "Asphalts and Malthas of America."

The Electrical Engineering Society held its third regular meeting on Wednesday, December 19th, in Room 22, Walker. Mr. J. W. Cooke, '95, read an interesting paper, illustrated by experiments, upon the different types of incandescent lamps. Mr. Sherman, '95, gave an intelligent description of the conduit systems in use in England, especially in Liverpool. The attendance was large, and the Society has good reason to be congratulated on the success of the meeting.

The Civil Engineering Society held a regular meeting Friday, December 28th, at 7.30

P. M., Room 11, R. Mr. R. W. Porter, '96, of Course IV., gave an interesting and well-illustrated lecture on the Cook Arctic expedition, which took place last summer, and of which he was a member. The audience was a large and appreciative one. At the close of the lecture Mr. Porter exhibited a large collection of views taken by various members of the expedition. Two students were elected to active membership of the society, after which the meeting adjourned at 9.30 o'clock.

The first meeting of the Cincinnati Club was held on Wednesday, December 19th, at one o'clock, in Room 11, Rogers. The Constitution was read and adopted. An election of officers was then held, and resulted as follows: Mr. Harry P. Coddington was unanimously chosen President; Mr. Edward H. Prichard, Vice President; Mr. George E. Merryweather, Secretary and Treasurer. Besides the bringing together of the students at Technology from the Queen City, this club has a more important object in view, that of developing the present and future Institute alumni at Cincinnati into an Engineering Society of the highest class. The club will have a dinner at the Parker House during the January recess.

The Freshman class held a meeting Saturday, December 22d, at 12 M., in Room 11, Rogers. Mr. Gardiner, of the Glee Club, addressed the class concerning the annual concert. It was voted to amend the constitution so that one seventh instead of one fourth of the class should constitute a quorum. Five dollars was appropriated toward defraying the expenses of the Institute Committee picture in "Technique," and sixteen dollars for the insertion of the picture of the '98 Football team. The class decided to hold a dinner sometime between the 19th and 29th of February, the cost of which should not exceed two dollars per plate. It was also voted that the dinner should be over at twelve o'clock, and that no wine should be served.

MIDWINTER CONCERT PROGRAMME.

At the Glee, Banjo and Mandolin concert in Huntington Hall, Wednesday evening, the following programme was rehearsed. An extended account of the occasion will be given in the next issue of THE TECH.

PART I.

Vocal March *Giebel.*

GLEE CLUB.

Tabasco March *Chadwick-Lansing.*

BANJO CLUB.

M. I. T. Waltz *Crandall.*

MANDOLIN CLUB.

(a) Hunting Chorus, Robin Hood *De Koven.*

(b) Old Woman *Herbert.*

GLEE CLUB.

Zither Duet *Selected.*

Estudiantina *Macome.*

GLEE AND BANJO CLUBS.

PART II.

Sleigh Ride Galop *Babb.*

BANJO CLUB.

(a) Hannah *Osgood.*

(b) In Picardie *Osgood.*

GLEE CLUB.

Spanish Gallopade *Romero.*

MANDOLIN CLUB.

Banjo Solo *Selected.*

SHEPARD.

Creole Love Song *Smith.*

GLEE CLUB.

M. I. T. Medley *Lansing.*

BANJO CLUB.

L'Avenir Bohemian Supper.

ON Friday, December 21st, about twenty members of L'Avenir gathered at Marliave's for the first Bohemian supper of the society. Mr. C. H. L. N. Bernard presided with Professor Despradelle on his right. After partaking of a most excellent supper, Mr. Bernard entertained the society with some very amusing anecdotes. Others followed his example, and the Architects started one of their standard songs, which was received with great applause. In this way the hours passed rapidly until Mr. Bernard arose to give a little

talk on the plays. Mr. Norris then ended the evening by thanking Professor Despradelle and Mr. Bernard for honoring the society with their presence and their entertaining stories.

Alumni Dinner.

THE Alumni Association of the Institute held its annual meeting and dinner at Young's Hotel on Wednesday evening, December 26th. The banquet was a great success, and nearly two hundred members were in attendance. Governor Greenhalge and Colonel Higginson were among the guests, and in their interesting speeches manifested a lively interest in the welfare of Technology.

Among the other speakers were Hon. Frank A. Hill, Capt. John Bigelow, Jr., and Prof. Horace B. Gale. President Monroe, of the Association, acted as toastmaster, and in the course of his remarks said that the deficit of \$33,000 last year had been reduced to \$13,000.

The officers for the ensuing year are as follows: President, James P. Munroe, '82; Vice President, Arthur T. Bradlee, '88; Secretary, Harry W. Tyler, '84; Executive Committee, two years, Frederick C. Blanchard, '91; three years, Frank L. Locke, '86; Trustee of the Alumni Fund, Edmund K. Turner, '70.

The Meeting of the American Chemical Society.

THE opening session of the Tenth General Meeting of the American Chemical Society was held in room 22, Walker Building, last Thursday. The meeting was called to order at 10 A. M., and on account of the absence of Alderman John H. Lee, Dr. Thomas M. Drown gave the welcoming address in his stead. After a reponse by Pres. H. W. Wiley the general business of the society was attended to, and the reading of papers commenced.

TITLES OF PAPERS.

Note on the Estimation of Iron and Alumina in Phosphates. K. P. McElroy.

The Coloring Matter in California Red Wines. W. D. Bigelow.

An Examination of the Atmosphere of Cleveland. C. F. Mabery. (Read by title only.)

Rainfall and Typhoid Fever. W. P. Mason. (By title only.)

The Advantages in the Use of Barium Hydrate Solution as an Absorbent in Carbon Determination in Steel. J. O. Handy.

Some Practical Points on the Manufacture of Nitroglycerine. J. E. Blomen. (Read by Professor Munroe.)

Some Points in the Distillation of Nitric Acid. Prof. Edward Hart.

Owing to the lateness of the time Prof. C. E. Munroe was unable to read his paper on "Tellurium from Copper Residues," but gave a brief talk on that subject instead.

In the course of his lecture Professor Munroe exhibited a magnificent specimen of Tellurium, obtained from the telluride ores of Colorado. The ingot is the largest in the world, weighing fifteen ounces and being valued at two hundred and fifty dollars.

Dr. Thomas M. Drown described briefly the Lawrence Experiment Station of the Massachusetts State Board of Health, and explained the nature of the work which has been carried on there for some years in the purification of Sewage and Water.

The session adjourned at one o'clock, and the members and guests lunched at the Union Station. Owing to the severity of the weather the excursions scheduled for Thursday afternoon and the meeting Thursday evening were abandoned. Friday morning the Society met in Boylston Hall, Harvard University, and the remaining papers were read.

President Walker's Report.

THE Annual Report of President Walker, and that of Mr. Wigglesworth, Treasurer of the Corporation, are about to be published, and we are enabled to make a rough survey of the year from a hasty glance at the proofs.

On the whole the college year has been one of true success, yet there have been several factors which have been peculiarly trying in their results. "No year in the history of Technology has brought more distressing losses from the corps of instructors; and never, or not for many years, at least, has the pressure of financial restriction been so hard and painful. The last-named feature of the situation is one which deserves the serious consideration of the members of the Corporation. It will soon be necessary, if indeed the time has not already come, for the friends of the Institute and the people of Boston and Massachusetts to decide whether this great school of industrial science, with its honorable record, and its vast possibilities of future usefulness, shall be allowed to suffer serious and enduring injury, and possibly irreparable disaster, from lack of pecuniary means. . . . Can we believe that the Commonwealth and people of Massachusetts will permit an institution which has so completely proved its usefulness in the scientific and technical education of her sons, to languish from want of funds properly to sustain and progressively to enlarge its activities? The poverty of the Institute is due solely to its overwhelming success as an institution of learning. Enough has been bestowed upon it to have fairly endowed a small institution of the second class, an ordinary college. The reason why its needs are so pressing, is because it has become one of the largest institutions of the first class. Its needs are so great because it is itself so much needed."

The college year of 1893-94 closed fortunately on the twenty-ninth of May. Of the 137 members of the Class of '94, 21 graduated in Civil Engineering, 31 in Mechanical Engineering, 4 in Mining Engineering, 13 in Architecture (11 above the previous year), 11 in Chemistry, 33 in Electrical Engineering, 1 in Biology, 12 in Chemical Engineering, 3 in Sanitary Engineering; while 5 graduated from the Department of General Studies.

The aggregate number of students now at Technology is divided as follows: Graduate students, candidates for an advanced degree, 5; regular students, fourth year, 155; regular students, third year, 186; regular students, second year, 215; regular students, first year, 276 (a decrease of 34 from last year); special students, 348.

"In addition to the entrance examinations held in Boston in June and September, examinations were also conducted in June at Belmont (Cal.), Buffalo, Chicago, Cincinnati, Cleveland, Denver, Detroit, Easthampton (Mass.), Exeter (N. H.), Louisville, New York, Philadelphia, Pittsburg, Poughkeepsie, St. Louis, St. Paul, and Washington."

"Thirty-seven States of the Union, besides the District of Columbia and the Territories of Utah and New Mexico, are represented on our list of students. Of the total number of eleven hundred and eighty-three, 707 are from Massachusetts, or 59.8 per cent of the whole; 122 are from other New England States; 354 are from outside of New England, of whom 24 are from foreign countries." "The number of students who are graduates from this and other institutions is 72."

The Course in Electrical Engineering still remains the largest at Technology. The courses in Mechanical and Civil Engineering follow in the order in which they have been named. "These three courses together embrace three hundred and thirty-six of the five hundred and fifty-four regular students, candidates for the degree in the three upper classes. In the case of Course IV., Architecture, the number of regular students fails to measure the importance of the department to the college, inasmuch as that course embraces a considerable number of college graduates, and of young men who have had experience as draughtsmen and assistants in architects' offices, who are allowed to enter the department as special students, to get as nearly as possible what they require without passing through the full course."

Mr. Wigglesworth in his report says: "The financial results of the past year are decidedly more satisfactory than those shown in the statement submitted a year ago. The expenses still exceed the income by a large amount, but that amount, instead of being, as last year, nearly \$33,000, is this year reduced to between \$13,000 and \$14,000. This is due, in part, to rigid economy in everything which was not essential to the efficiency of Institute work; partly, also, to the fact that some expenditures of the preceding year were extraordinary ones, and did not have to be met this year; and partly to the increase in income due to a larger number of students, and to the large bequests received the previous year. . . . In the item of repairs, the saving of about \$5,000 was accomplished. . . . In general expenses there has also been a saving of nearly \$3,000. The income from students' fees has been increased over \$17,000.

"The past year has brought to the Institute generous bequests and gifts. By the will of Mrs. Catherine P. Perkins, \$38,713 were received, and something more is still to be paid to the Institute as one of the residuary legatees. Under the will of William J. Walker, \$10,537.27 have been received; \$868.11 have been added to the Susan E. Dorr fund. From the subscriptions of 1892 have come \$24,500 in addition to the previous payments. Besides these, a gift of \$200 has been received from Mrs. William B. Rogers, for periodicals; another of \$575, from friends, for the Mining department and the Architectural department, whereby those departments have been enabled to make important additions to their respective collections. A. Lawrence Lowell, Esq., has contributed \$500 for the general purposes of the Institute, and the Alumni have added \$621 to the William B. Rogers Scholarship fund.

"The net results, after deducting the excess of expenditure over income, and certain other items, is a gain of \$105,797.07 to the property of the Institute."

Semiannual Examination Schedule, 1895.

EXERCISES will be suspended for the first year on and after Saturday, January 12th; for the second year, on and after Thursday, January 10th; for the third and fourth years, on and after Monday, January 7th.

Conflicts. Students having two examinations on the same day should hand in complete schedules of their examinations not later than January 5th.

Reports will be mailed January 26th to students of age, and to the parents of others. None can be given out verbally. Requests for duplicates will be received until January 9th.

TUESDAY, JAN. 8.—4, Hydraulics, Porter, 9 A.M.; 3, Physics, Clifford, 1 P.M.

WEDNESDAY, JAN. 9.—4, Hyd. Measurem'ts, Porter, 9 A.M.; 4, R. R. Signals, Blodgett, 1 P.M.; 4, Comp. Physiology, Hough, 1 P.M.; 3, Diff. Equat'ns, Osborne, 9 A.M.; 2, Mechanism,* Merrill, 9 A.M.; 2, Physics,* Cross, 9 A.M.; 2, Desc. Geometry,* Faunce, 9 A.M.

THURSDAY, JAN. 10.—4, Applied Mechanics, Lanza, 9 A.M.; 4, Hist. of Induct. Sci., Sedgwick, 1 P.M.; 3, Anthropol., Sedgwick, 1 P.M.; 3, Applied Mechanics, Sondericker, 9 A.M.; 3, Theoret. Chem., Talbot, 9 A.M.; 1, Trigonometry,* Wells, 9 A.M.; 1, Mech. Drawing,* Faunce, 9 A.M.

FRIDAY, JAN. 11.—4, Anal. Mechanics, Lanza, 9 A.M.; 4, Met. of Iron, Richards, 9 A.M.; 4, Micros. Anat., Hough, 1 P.M.; 4, Phys. Laboratory, Holman, 9 A.M.; 3, Freehand Drawing, Adams, 9 A.M.; 3, Naval Arch., Peabody, 9 A.M.; 3, Stereotomy, Porter, 9 A.M.; 3, Telegraphy, Cross, 9 A.M.; 2, 3, Eng. Lit., Bates, 1 P.M.

SATURDAY, JAN. 12.—4, Elect. Engin'ring, Cross, 9 A.M.; 4, Inter'tional Law, Ripley, 9 A.M.; 3, Mining, Engin'ring, Hofman, 9 A.M.; 2, 3, 4, Polit. Econ'my, Dewey, Ripley, 9 A.M.; 2, 3, Amer. Hist'ry, Currier, 1 P.M.

MONDAY, JAN. 14.—4, Alternating Currents, Clifford, 9 A.M.; 4, Eng. Liter'ature, Bates, 1 P.M.; 4, Machine Design, Schwamb, 9 A.M.; 4, Organic Chem., Crafts, 9 A.M.; 4, Structures, Swain, 9 A.M.; 3, 4, Anal. Chem., Drown, 1 P.M.; 3, 4, Hist. of Renaissance, Sumner, 1 P.M.; 3, Thermodyn., Peabody, Miller, 9 A.M.; 2, Physics, Cross, 9 A.M.; 1, English (entrance), Bates, 1 P.M.; 1 French or Germ.(ent'ce), van Daell, 2.30 P.M.

TUESDAY, JAN. 15.—4, Dyn. of Machines, Lanza, 9 A.M.; 4, Energetics, Goodwin, 9 A.M.; 4, Geodesy, Burton, 9 A.M.; 4, Geod. Surveying, Burton, 9 A.M.; 4, Mining Engineering, Richards, 9 A.M.; 3, Arch. History,

Homer, 9 A.M.; 3, Geology (str. and chem.), Crosby, 9 A.M.; 3, Quaternions, Bailey, 9 A.M.; 2, Materials, Chandler, 1 P.M.; 2, Mechanism,* Merrill, 9 A.M.; 1, Freehand Drawing, Adams, 1 P.M.; 1, Geometry (plane) ent'ce, Wells, 9 A.M.

WEDNESDAY, JAN. 16.—4, Climatology, Niles, 1 P.M.; 4, Least Squares, Bartlett, 9 A.M.; 4, Life Class, Adams, 9 A.M.; 4, Metallurgy, Hofman, Howe, 1 P.M.; 4, Naval Arch., Peabody, 9 A.M.; 4, R. R. Engineering, Allen, 9 A.M.; 3, Comp. Anatomy, Bigelow, 9 A.M.; 3, Assaying, Lodge, 9 A.M.; 3, Physiol. of Senses, Hough, 9 A.M.; 3, Surveying, Burton, 9 A.M.; 3, Valve Gears, Peabody, Miller, 9 A.M.; 2, Acoustics, Clifford, 9 A.M.; 2, Freehand Drawing, Adams, 9 A.M.; 2, Political History, Sumner, 1 P.M.; 1, Geometry (solid), Wells, 9 A.M.

THURSDAY, JAN. 17.—4, Physiology (IX.), Hough, 1 P.M.; 4, San. and Hyd. Engineering, Porter, 9 A.M.; 4, Steam Engineering, Peabody, 9 A.M.; 3, Indust. Chemistry, Thorp, Drown, 9 A.M.; 3, R. R. Engineering, Allen, 9 A.M.; 3, Theoret. Electricity, Clifford, 9 A.M.; 2, 3, Anal. Chemistry, Talbot, Moody, Walker, 9 A.M.; 2, Economic Problems, Ripley, 1 P.M.; 1, Military Science, Bigelow, 1 P.M.; 1, Arithmetic (entrance), Wells, 9 A.M.

FRIDAY, JAN. 18.—4, Biology, Theoret., Bigelow, 9 A.M.; 4, Dynamo Test Photometry, Puffer, Clifford, 9 A.M.; 4, Elect. Measurements, Laws, 9 A.M.; 4, English and Amer. Lit., Bates, 1 P.M.; 4, Gas Analysis (X), Gill, 9 A.M.; 3, Integral Calculus, Osborne, 1 P.M.; 3, Sanitary Chemistry, Mrs. Richards, Lincoln, 9 A.M.; 1, Algebra, Wells, 9 A.M.

SATURDAY, JAN. 19.—4, Bacteriology, Sedgwick, 9 A.M.; 4, Fournier's Series, Bailey, 9 A.M.; 4, R. R. Manage., Allen, 9 A.M.; 4, Text Color, J. W. Smith, 9 A.M.; 2, 3, Gen. Biology, Sedgwick, 9 A.M.; 2, 3, Organic Chemistry, Noyes, 9 A.M.; 2, Anal. Geom'try,* Runkle, 9 A.M.; 1, History (entrance), Currier, 9 A.M.; 1, Algebra (entrance), Wells, 11 A.M.

*For students granted special examinations by the Faculty. Examinations in other subjects should be arranged directly with the examiners for dates between January 7 and January 19 inclusive. Failure to pass such examinations (or absence) will involve repetition of the work next term.

Freedom.

Now freedom is once more restored,
For which we sternly fought;
With painful care we'll not be bored,—
The coat thief has been caught.



Join the Athletic Club. Annual membership, \$1; life membership, \$3.

Hereafter, all who equal records of the M. I. T. A. C., shall share the honor of holding them with the ones by whom they were first made.

The points scored by the classes thus far this year are as follows: Seniors, 22; Juniors, 44; Sophmores, 4; and Freshmen, 11. Records made hereafter will not count two points, a provision in the manner of scoring points for the class championship cup which is provided for in the new constitution of the Athletic Club. The above score includes 8 points for '96, and 1 for '98, in the Cross-Country run of November 10th.

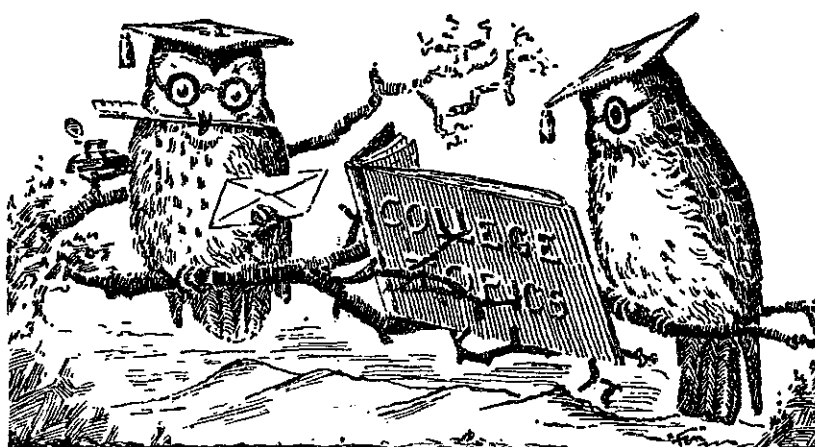
Now that the Cross-Country Run and the indoor Class championships are over, the Annual Scratch Meeting, held under the auspices of the M. I. T. A. C., in the South Armory, on Irvington Street, invites the attention of our athletes. The games will be held early in March, 1895, and are recognized as the largest indoor meet of the year, bringing together, as they do, contestants from the New England colleges.

An Ad.

A sallow youth, with cigarette,
Stands on the steps above;
A badge upon his coat lapel
Proclaims he fain would love.

"Girl wanted!" as we view the youth,
It seems a wiser plan
That ere he strives to find the girl,
He'd better find the man.

DON D.



A "Current Events" Club has been organized at Smith College.

Eight of this year's Harvard eleven will be eligible to play again next fall.

It is rumored that Yale will play no more football games in New York City.

The Dartmouth strongly opposes the idea of making that college co-educational.

The number of students at Yale this year is 2,413,—an increase of 211 over last year.

Bates College will build a library in memory of James G. Blaine, one of its trustees.

The first association football team in an American college has been founded at Princeton.

Harvard and Princeton are negotiating for a series of joint debates on topics of national interest.

Plans for the construction of a new dormitory to cost \$50,000 at Brown University have been accepted.

Brown has drawn up a new constitution, consolidating the management of all the athletic teams in one person.

The Worcester Polytechnic Institute will have two new buildings,—an engineering laboratory and power house.

The proposition to invite Oxford and Cambridge to join Harvard, Yale and the University of Pennsylvania in meetings of picked athletic teams in 1895 and 1896, first in this country and then in England, is now being agitated.

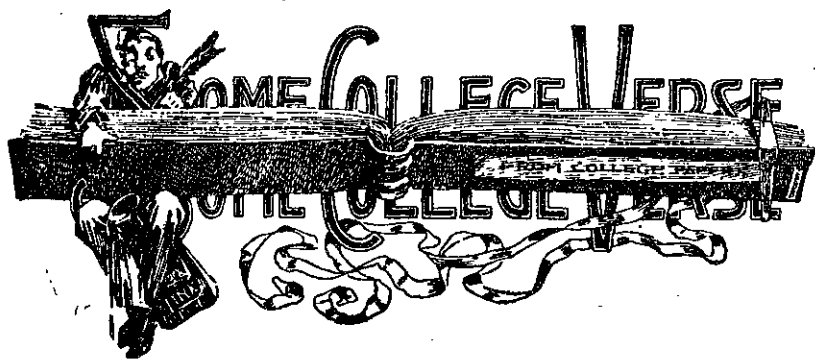


THE Lounger has been glad to observe from the columns of the press that one perturbed spirit has found rest. Calm and quiet prevails; the torn and bruised heart is healed. The troublous times of the war god's month are past. In short, the present incumbent's flighty predecessor has found a snug berth in New York Harbor, whence his eagle eye is of much service in descrying dutiable goods, and detecting microscopic criticisms,—and the Lounger is duly thankful.

In the simple but expressive language of a forgotten writer, the semiannual vortex has begun to vort. Its sinuous gyrations are ready to entangle many a brave soul who, with utter recklessness, has boasted that he never opens a book till a week before exam. time, as well as a few others of the elect. Many evils that we undergo can be deferred to a certain amount, within the limit of elasticity. Futile, however, are the efforts to stave off the relentless day when one must stand alone in the awful presence of the blue book, and inscribe within its covers the results of fifteen weeks' absorptive effort. The Freshman certainly has an easy time, and the Lounger rejoices with him. To the unlucky Junior and Senior, struggling desperately under twelve or fourteen "crushers," the Lounger extends his sympathy, and would also extend his hand, if he thought it would be of any aid in once more fooling the profs. The Lounger has often thought that a judicious application of the Chinese system might find well-deserved favor, if suitably applied in Technology. Conceive each trembling neophyte securely ensconced in a brass-bound, terra-cotta cell, there to work out Descrip., or penetrate the mysteries of Thermo., in becoming solitude. Where would be the use for the lynx-eyed proctor, who, newly invested with a brief authority, gazes about him with eager glance, hoping to discover some wretched man who has been clever enough to condense Lanza's Applied to the meager

confines of a cuff. The Lounger has always felt that it was a cruel mistake to punish effort so painstaking and serviceable as this. However, such worthy doings are under ban, and woe to him who employs them. For the honor man who approaches exam. time with such calm certainty the Lounger has small envy. How monotonous it must prove after a time! Contrarywise, how much more inspiring to have the glorious element of uncertainty floating joyously about, which, until reports are received, permits such exciting speculation. Any such agreeable diversion in Technology life is surely welcome, and the Lounger hails exam. time with his usual unruffled spirit,—exam. time, bristling with joys, sorrows, surprises, undeserved flunks, unsuspected P's, and other curiosities. Meantime, let every man contribute his share to the wealth of the Standard Oil, and after the exciting period is over, celebrate with all joy and wantonness.

Not to pursue further a possibly distasteful subject, the Lounger will relate an incident which he recently witnessed. It was not long ago that he was prowling about the steps in the early shades of night, his eye well peeled for a possible Loungerism, when an express wagon halted silently at the curb in front of Rogers. This particular day was one of those marked F in the calendar, signifying "faculty meeting," and the profs. had long been sitting in council over some interesting cases. The debate had been long and heated; but whether or not it was on Linus Faunce's patent marking system, the Lounger is not at liberty to say. Oratory was on tap in large quantities, throats became parched and dry, and metaphorical fur was flying about by the bushel. Difficulties were finally adjusted, however, and quiet prevailed. It was shortly after this that the aforesaid express wagon drew up at the curb. The driver descended from his perch, and proceeding to the door of the subterranean apartments, received several kegs, evidently not designed to hold nails. The Lounger approached carelessly, and endeavored through the descending gloom to catch a closer glimpse. Owing to the dusk, accurate inspection was difficult, and he cannot, therefore, say positively whether what he saw was a revenue stamp and an imposing XXX or not. However, the Lounger wishes it understood that he attaches no significance to the appearance of these "bar'ls" closely subsequent to the end of the Faculty meeting, but it might, nevertheless, prove a subject worth investigating.



I shot an arrow into the air,
It fell to earth, I know not where;
But shortly after a man came round,
And I bought dead dog at a dollar a pound.
—*Cornell Widow.*

TO THE MOON.

O Queen of Night, whose silvery ray
Shines down from heaven upon my weary toil,
Have pity on me—prithree, say,
How can I pass, and spare the midnight oil?
—*Red and Blue.*

THE PRIMA DONNA.

Wrinkle, wrinkle, little star,
None can guess what age you are,
As you nightly smile and smirk
At your histrionic work.
—*Bowdoin Orient.*

'NEATH THE MISTLETOE.

When her lips met mine 'neath the mistletoe,
I felt the thrill of a joy divine,
For I knew that her heart was forever mine.
The holy love in her soft eyes' glow
Made my soul her own for aye,
Hers until heaven should pass away,—
When her lips met mine 'neath the mistletoe.
—*University Chronicle.*

WHERE CUPID DWELLS.

Way over the seas, in a far, far land,
Where skies are blue and gold,
Where ripples break on a silver sand,
And sunbeams ne'er grow old,
There's a dale where Cupid dwells, they say,
And 'tis there that he rests from his frolic play.
Oh! there's many a lass and many a swain
That knows of his shafts made there;
For Cupid spares naught of a deep heart-pain,
Though love be all his care.
And I think he should make a reflection or two,
When he rests over there from his play. Don't you?
—*Yale Courant.*

A NEW YEAR WISH.

To Time's abysmal, awful flood
The Old Year now resign—
It's shadow, sunshine, evil, good,
Beneficent, malign.
And may this New Year's hopeful birth
A glad fruition pour,
And such delights vouchsafed to earth
Foretaste of Heaven's store.
—*Ægis.*

A SENIOR'S PLEA.

Dear father, once you said, "My son,
To manhood you have grown;
Make others trust you, trust yourself,
And learn to stand alone."
Now, father, soon I graduate,
And those who long have shown
How well they trust me, want their cash,
And I can stand a loan."
—*Trinity Tablet.*

THE CONVERSION.

She told him surely 'twas not right
To smoke a pipe from morn to night.
"Indeed," cried he, "what would you, dear?
'Tis but to aid my thoughts of you."
"Why, then," she whispered, nestling near,
"Why, then, I love your old pipe, too."
—*Harvard Advocate.*

A QUERY.

Ye listening rocks, ye sounding sea,
Ye bellowing winds from o'er the lea!
Oh! tell me, if ye can tell aught,
What will they call the class 00?
—*Yale Record.*

SONG.

My little lady's white and fair,
Purer than lilies, sweeter than wine.
Ah, but her love is dearer than heaven!
Heaven enough is to know she is mine.
My little lady's lips are roses,
Her eyes twin lakes of tremulous blue;
Her filmy hair is a mist of morning,
With flashes of sunrise filtering through.
My little lady's smile is rarer,
Softer than tranced twilight skies;
All my heart goes out to her, singing,
When she comes close and looks into my eyes.
My little lady's heart is constant,
Truer than needle to pole is she.
Time may go flying while others are sighing—
Heaven is mine—for she loves but me.
—*Amherst Lit.*

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AT THE THEATRES.—Week beginning January 7th, '95.

COLUMBIA.—For two weeks. Mr. A. M. Palmer's Home Company, from Palmer's Theatre, New York, in "The New Woman," by Sydney Grundy. Presented with original cast, scenery accessories, etc.

PARK.—Hoyt's "A Black Sheep." A reigning success and a gigantic hit. Above every and any thing as a laugh producer. A positive cure for the blues. Secure your seats in advance.



HOLLIS STREET.—Second week of Julia Marlowe Taber, assisted by a company including Mr. Robert Taber, in a grand repertoire "As You Like It," "Ingomar," "Much Ado About Nothing," and "The Belle's Strategem" and "Chatterton." Regular Hollis Street Theatre prices.

BOSTON.—Mr. James A. Herne in his own beautiful comedy drama, "Shore Acres," the great Boston and New York success. Under the direction of Henry C. Miner.

BOSTON MUSEUM.—The event of the season. The new Comic Opera, "Westward, Ho!" Libretto by Richard D. Ware; Music by Benj. E. Woolf.

CASTLE SQUARE.—A sensational new Comic Opera will be introduced to Boston theatre goers which promises to be a great success. Branch ticket office 175-B Tremont Street.

BOSTON POLO RINK.—Corner Shawmut and West Newton Streets. Polo games every Tuesday, Wednesday, and Friday evenings. Admission 25 cents.

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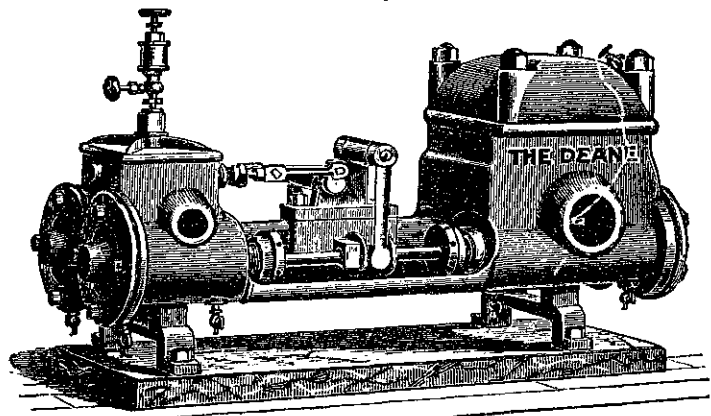
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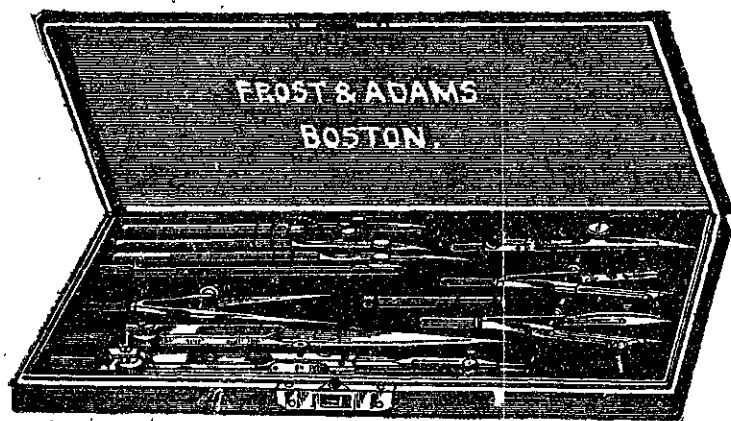
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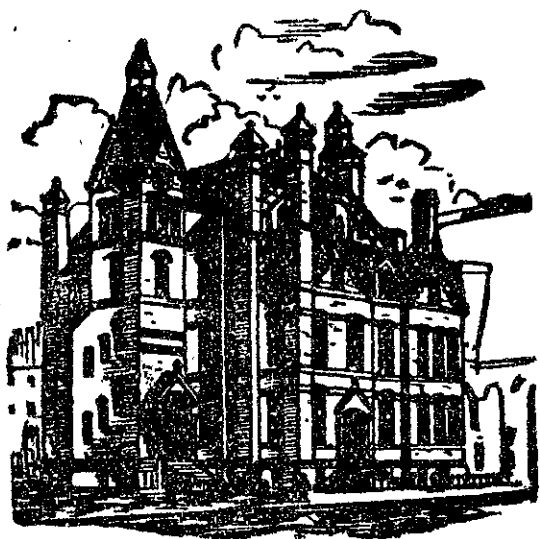
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